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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,313	03/16/2000	Michael E. Pietraszak	14531.57.1	2247
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WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER SLOAN, NATHAN A	
			ART UNIT 2614	PAPER NUMBER 13

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/527,313

Applicant(s)

PIETRASZAK ET AL.

Examiner

Nathan A Sloan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45 and 47-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45 and 47-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

In response to amendment C dated November 13, 2003, applicant has added new claims to more particularly claim the present invention. These new claims are addressed in detail in the following rejections.

With respect to independent claims 45, 56, 64, applicant asserts that the amended/new claims place the application in condition for allowance. Applicant has amended to indicate that the scaling is performed after EPG data is converted into a common format and pointed to the relied upon art of record, Usui, as failing to teach this limitation. Clearly it is agreed that Usui teaches converting EPG data to a common format (Fig. 8) and scaling / storing based on user specified conditions (Fig. 7). This is indicated by applicant on pages 8 and 9, citing sections of col. 9 and 10.

Applicant asserts, however, that it is “no single method described by Usui in which user specified conditioning AND reformatting are applied prior to storage.” Furthermore, it is the position of applicant that “there would be not motivation to meld the teachings ... since the are both mutually exclusive. For example, Usui teaches that the Fig. 7 method will require larger memory usage since EPG data is in different formats ... [and that] Usui provides Fig. 8 ... to avoid large memory requirements.” Examiner disagrees. It is precisely these teachings of Usui that make it obvious to combine and arrive at the presently claimed invention. That is, clearly one of ordinary skill in the art at the time of the invention would have been motivated to allow user specified conditioning for personal preferences and conserve memory with a common

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format to avoid large, costly memory requirements. This is addressed in detail in the following rejections.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 45, 56, and 64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, it is not clear where support may be found for “collecting the EPG data in a standardized format” *prior* to “enforcing a scaling of the collected EPG data according to factors provided by a user.” This rejection may be overcome by clearly pointing to supporting sections in the specification as originally filed.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 45 and 47-55 are rejected as being unpatentable over Usui et al. (6,075,570) in view of Williams et al. (6,157,411).

With respect to claim 45, the claimed “system for receiving EPG data from one or more EPG data providers in a plurality of data formats and for providing consolidated EPG data available in a standardized format to one or more applications running on the system” is met by Usui with reference to Figure 1. The claimed EPG services module for “receiving EPG data from a plurality of EPG data sources and providing consolidated EPG data in a standardized format ...” is met with EPG receiver 6 of Figure 2, which functions as in Fig. 8 to provide EPG data in a standardized format. Receiving units taught in column 17, lines 4-22 receive EPG data from a variety of sources and provide this to EPG receiver 6. With reference to Figure 8, receiver 6 inherently contains “one or more loader modules” to select equipment S31, request data S32, “convert EPG data received from the EPG data provider from its native format to a standardized format” S33, and store the data. The claimed writer module is met by controller 204 of Figure 2, which collects EPG data from the various receiving equipment and converts using translator 206 to store the data in common format understood by EPG receiver 6 (see also col.10:41-48). Commands to process and format data are stored in EEPROM unit 206, thus providing a computer readable medium carrying computer executable instructions. A user may

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enforce “a scaling of the collected EPG data according to factors provided by a user” as taught in col. 9:7-9, 21-44, and 45-46. Usui does not teach converting to a common format before scaling with factors of a user. However, Usui clearly teaches that when only using factors provided by a user, a large amount of memory is utilized (col. 10:21-25) in comparison to when a common storage format is used. It would have been obvious for one skilled in the art at the time of the invention to modify the system of Usui by placing data into a common format and using user provided factors in order to make the required capacity of RAM unit smaller (col. 11:12-13) and allow users to identify factors such as particular channels or categories of most interest (col. 9:25-43).

A user may request “EPG data from the one or more applications,” which results in the EPG data being retrieved from storage and returned as taught in col. 2:14-20. This data is stored in a database within RAM 207 as noted above, and then read out in response to a user request by controller 226 of Figure 5, claimed control module. This data is then provided to generating circuit 227 which generates the data for display, which shows an interactive application that allows the user to select items using a remote control seen in Figures 4 or 6. Usui does not explicitly teach an application program interface configured to provide “a standardized interface between the EPG control module and the one or more applications requiring EPG data.” Usui does teach that the controller interfaces with receiving units to receive and format the data, but not explicitly that they are an API. Williams et al. teach the use of an API in column 6, lines 15-25. It would have been obvious for one skilled in the art at the time of the invention to include an API between the receivers and controller of Usui in order to allow a standard interface for receiving and processing data.

Furthermore, the limitation of the system being able to add EPG providers, remove providers, *or* accommodate changes “without having to modify or update the code of any of the one or more applications” is claimed in the alternative and as such Usui meets this limitation by adding EPG providers as taught in column 17, lines 4-16. A plurality of devices may be added to the system as claimed to receive EPG data as seen in Figure 22. It is inherent that these devices may also be removed and the invention function the same way because they are merely additional sources of information and not essential to the execution of controller 204 storing EPG data in memory. Assuming this limitation was modified to read add providers, remove providers, *and* accommodate changes, examiner notes that the adding and removing of data sources without modifications to applications is notoriously well known in the art. For example, plug-and-play technologies to “hot swap” devices without updating software are well known using object oriented programming techniques.

The specific connection of one or more loader modules “with a separate EPG loader module for each EPG data source,” is not explicitly taught. However, “loader modules” are inherently contained to retrieve data from each receiver as noted above. Instructions are provided to convert and format this data as necessary, but not use of a separate loader module for each source. As previously cited and uncontested by applicant, examiner takes Official Notice that it is well known to create an instance of module to interface with applications, such as in programming languages using object-oriented architecture. It would have been obvious for one skilled in the art at the time of the invention to modify the methods taught by Usui by creating a loader module for each interface using well known programming techniques in order to provide a flexible, re-programmable environment. This applies not only to providing separate loader

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modules, but also to any “module” or C++ type class that allows easy adaptation of a system using object oriented techniques such as inheritance, polymorphism, etc.

With respect to claim 47, the claimed factors provided by a user comprising to at least one of “time, language, richness, channels, and services” is taught by Usui as noted above by scaling EPG data to be stored based on user conditions. In column 9, lines 10-20 these conditions are taught to include program names or services, broadcast times, and broadcast channels as claimed. The claimed factor including language is taught in column 6, lines 66-67 and column 7, line 1. These factors then determine which EPG data to store, taught in column 9, lines 22-40 with storing EPG data according to user defined factors in RAM unit 207.

With respect to claim 48, the claimed writer module containing computer executable instructions for “resolving conflicts between EPG data received from two or more EPG data providers” is taught in column 11, lines 23-35 with comparing broadcast names and programs from sources to determine if the programs need to be preserved as different pieces of information, or if they are the same.

With respect to claim 49, the claimed loader modules comprising computer executable instructions “for implementing a priority scheme” is taught by Usui et al. with a step of making a selection as to which receiving equipment to select, seen in Figure 7 step S21. As seen in Figure 6, a user may select the EPG category to be received and displayed using equipment button 244 meeting the claimed “priority scheme.” This then causes controller 204 to implement a selection for receiving, integrating, and displaying EPG data utilizing the processes seen in Fig. 7 and 8.

With respect to claims 50 and 51, the claimed writer module comprising computer executable instructions “for limiting the amount of the EPG data that may be placed in the

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storage” is taught by managing memory associated with RAM 207. As taught in column 11, lines 43-51 EPG data may be deleted once viewed, meeting the claimed “removing expired EPG data from storage.” The amount of memory contained in RAM 207 is inherently limited and by managing memory resources to efficiently store EPG data the limiting of data to be stored in RAM 207 memory is taught.

With respect to claim 52, the claimed writer module comprising computer executable instructions “for keeping the last EPG data stored to a particular portion of the storage” is met by keeping a history of EPG reception, taught in column 5, lines 59-63. This includes keeping the last information of EPG data stored when the power is turned off so the channel may be received again when power is turned back on.

With respect to claim 53, the claimed “storage is a database” is taught in column 10, lines 66-67 and column 11, lines 1-2.

With respect to claim 54, Usui teaches recording EPG data as noted above, teaches that input video signals are digital as claimed, and in column 15, lines 46-49 the recording of digital programming represented by EPG data using a VCR is taught.

With respect to claim 55, the claimed “EPG loader module is capable of being added to the device and removed from the device” is inherent to the invention. Clearly the receivers may be added to the device to form Usui’s invention. As taught in column 17, lines 4-16 a plurality of devices may be added to the system as claimed to receive EPG data (Figure 22.) It is inherent that these devices may also be removed and the invention function the same way because they are merely additional sources of information and not essential to the execution of controller 204 storing EPG data in memory.

3. Claims 56-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usui et al. (6,075,570).

With respect to claims 56 and 64, Usui teaches the claimed system and computer product for receiving EPG data from multiple EPG data providers in a plurality of formats as noted in detail above (see Fig. 1). The data may be reformatted to a “standardized format” for storage as seen in Fig. 8, step S33 and S34, and may also be scaled “according to factors provided by a user” as seen in Fig. 7, step S23 and taught in col. 9:21-44. Usui does not teach reformatting and then scaling the reformatted data as presently claimed. However, Usui teaches that when only using factors provided by a user, a large amount of memory is utilized (col. 10:21-25) in comparison to when a common storage format is used. It would have been obvious for one skilled in the art at the time of the invention to modify the system of Usui by placing data into a common format and using user provided factors in order to make the required capacity of RAM unit smaller (col. 11:12-13) and allow users to identify factors such as particular channels or categories of most interest (col. 9:25-43). Data may be stored as previously noted and seen at step S34 of Fig. 8.

With respect to claims 57 and 65, the claimed receiving and detecting EPG data from a first and second provider using first and second loader modules are met by receiving and detecting EPG data from devices seen in Fig. 1. The specific connection of a first and second loader modules for each EPG data source is not explicitly taught. However, “loader modules” are inherently contained to retrieve data from each receiver as noted above. Instructions are provided to convert and format this data as necessary, but not use of a separate loader module for each source. As previously cited and uncontested by applicant, examiner takes Official Notice

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that it is well known to create an instance of module to interface with applications, such as in programming languages using object-oriented architecture. It would have been obvious for one skilled in the art at the time of the invention to modify the methods taught by Usui by creating a loader module for each interface using well known programming techniques in order to provide a flexible, re-programmable environment. This applies not only to providing separate loader modules, but also to any “module” or C++ type class that allows easy adaptation of a system using object oriented techniques such as inheritance, polymorphism, etc.

With respect to claims 58 and 66, the claimed implementation of “conflict resolution for the first and second loader modules” is met by the loader modules addressed in response to claims 57 and 65 above, and further in col.11:23-35 by comparing broadcast names and programs from sources to determine if the programs need to be preserved as different pieces of information, or if they are the same.

With respect to claim 59, the claimed loader first and second modules following a “priority scheme” is taught by Usui et al. with a step of making a selection as to which receiving equipment to select, seen in Figure 7 step S21. As seen in Figure 6, a user may select the EPG category to be received and displayed using equipment button 244 meeting the claimed “priority scheme.” This then causes controller 204 to implement a selection for receiving, integrating, and displaying EPG data utilizing the processes seen in Figures 7 and 8.

With respect to claims 60 and 67, the claimed factors provided by a user comprising to at least one of “time, language, richness, channels, and services” is taught by Usui as noted above by scaling EPG data to be stored based on user conditions. In column 9, lines 10-20 these conditions are taught to include program names or services, broadcast times, and broadcast

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channels as claimed. The claimed factor including language is taught in column 6, lines 66-67 and column 7, line 1. These factors then determine which EPG data to store, taught in column 9, lines 22-40 with storing EPG data according to user defined factors in RAM unit 207.

With respect to claims 61-62 and 68-69, the claimed "limiting the amount of scaled and reformatted EPG data that may be placed in the storage" is taught by managing memory associated with RAM 207 in view of the combination in response to claims 56 and 64 above. As taught in column 11, lines 43-51 EPG data may be deleted once viewed, meeting the claimed "removing expired EPG data from storage." The amount of memory contained in RAM 207 is inherently limited and by managing memory resources to efficiently store EPG data the limiting of data to be stored in RAM 207 memory is taught.


With respect to claims 63 and 70, the claimed accessing the EPG data from storage is taught in col. 2:14-20 with storing and retrieving EPG data for display.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan A Sloan whose telephone number is (703) 305-8143. The examiner can normally be reached on Mon-Fri 7:30am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703)305-4795. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-HELP.


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